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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,637	01/25/2002	Marc D. Alexander	16356.668 (DC-03278)	9843
27683	7590	06/17/2004	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			HUYNH, KIM T	
			ART UNIT	PAPER NUMBER

2112

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,637

Applicant(s)

ALEXANDER ET AL.

Examiner

Kim T. Huynh

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Ding et al. (US Patent 6,141,703)

As per claims 1, 8, Ding discloses an information handling system comprising:

- a processor;(fig.3, 202)
- a memory(fig.2, 212) coupled to the processor; (fig.2, 202)
- an interrupt controller (fig.3, 204) coupled to the processor; a dynamic router, coupled to the interrupt controller, for allocating interrupts to devices; (col.2, lines 24-28)
- a first device which requests a first interrupt and which is assigned the first interrupt by the dynamic router; and (co.3, line 65-co..4, line 20)
- a second device which requests the first interrupt and which is instead assigned a second interrupt by the dynamic router such that interrupt requests are dynamically allocated to provide a more balanced interrupt distribution. (col.1, lines 40-46), (col.5, line 23-col.6, line 55)

As per claim 2, 9, discloses the information handling system further comprising an interrupt table for storing information relative to which interrupt is associated with which device. (col.7, lines 9-38)

As per claims 3, 10, discloses an information handling system further comprising an operating system and a data path between the operating system and the interrupt table such that the operating system is informed of the dynamically allocated interrupts by the interrupt table. (col.4, lines 44-56)

As per claims 4, 11, discloses the information handling system further comprising a third device which generates a higher number of interrupt requests than the first device, the first and third devices sharing the first interrupt. (col.5, line 23-col.6, line 55)

As per claims 5, 12, discloses the information handling system further comprising a third device which generates a higher number of interrupt requests than the second device, the second and third devices sharing the second interrupt. (col.5, line 23-col.6, line 55)

As per claims 6, 13, discloses the information handling system further comprising a third device which generates a lower number of interrupt requests than the first device, the first and third devices sharing the first interrupt. (col.5, line 23-col.6, line 55)

As per claims 7, 14, discloses the information handling system further comprising a third device which generates a lower number of interrupt requests than the

second device, the second and third devices sharing the second interrupt. (col.5, line 23-col.6, line 55)

As per claim 15, discloses a method of allocating interrupts in an information handling system comprising:

- assigning a first interrupt to a first device when the first device requests to be assigned the first interrupt; and (col.3, line 65-col.4, 20)
- assigning a second interrupt to a second device when the second device requests to be assigned the first interrupt. (col.3, line 65-col.4, 20)

As per claim 16, discloses the method further comprising informing an operating system in the information handling system that the second interrupt is assigned to the second device. (col.3, line 65-col.4, 20)

As per claim 17, discloses the method further comprising determining if the first device generates a large number of interrupt requests and if so sharing the first interrupt with a third device which generates a lower number of interrupt requests than the first device. (col.5, line 25-col.6, line 55)

As per claim 18, discloses the method further comprising determining if the second device generates a large number of interrupt requests and if so sharing the second interrupt with a third device which generates a lower number of interrupt requests than the first device. (col.7, line 22-col.8, line 7)

As per claim 19, discloses the method further comprising determining if the first device generates a low number of interrupt requests and if so sharing the first interrupt with a third device which generates a high number of interrupt requests.

Art Unit: 2112

(col.7, line 22-col.8, line 7)

As per claim 20, discloses the method further comprising determining if the second device generates a low number of interrupt requests and if so sharing the second interrupt with a third device which generates a high number of interrupt requests. (col.7, line 22-col.8, line 7)

As per claim 21, discloses wherein the first and second devices populate respective first and second expansion slots in the system. (col.3, lines 49-54)

As per claim 22, discloses wherein the first and second devices are on-board devices. (col.3, lines 49-54)

As per claim 23, discloses wherein one of the first and second devices populates an expansion slot in the system and the other of the first and second devices is an on-board device. (col.3, lines 49-54), fig.3

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (703)305-5384 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 8:30AM- 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815 or via e-mail addressed to [mark.rinehart@uspto.gov]. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5631.

Kim Huynh

June 13, 2004



MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100